



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20531  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,916	05/15/2001	Richard J. Larson JR.	06155-063001	1138

7590 06/19/2002  
JOHN J. GAGEL  
Fish & Richardson P.C.  
225 Franklin Street  
Boston, MA 02110-2804

EXAMINER
----------

ZIMMER, MARC S

ART UNIT	PAPER NUMBER
----------	--------------

1712

DATE MAILED: 06/19/2002

3

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/855,916

Examiner

Marc S. Zimmer

Applicant(s)

LARSON ET AL.

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2002.  
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4, 9-16, 18-20, 23-26, 35-38 and 43-88 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 15, 26, 49, 61-71, and 87-88 is/are allowed.  
6) ☒ Claim(s) 1-4, 9, 11-14, 16, 18-20, 24, 25, 35-38, 43, 45, 47, 48, 50, 52, 55, 59, 72, 75, 79, 81, 85 and 86 is/are rejected.  
7) ☒ Claim(s) 10, 23, 44, 46, 51, 53, 54, 56-58, 60, 73, 74, 76-78, 80 and 82-84 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.  
12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.  
14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.  
15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other:

On the basis of the Examiner's indication of allowable subject matter in claims 8 and 42, the Applicants have amended claims 1 and 35 to include these limitations. It has since been determined however that the Examiner had construed some aspects of the claimed invention far too narrowly thus necessitating the rejections that follow. Any inconvenience this may have caused is sincerely regretted.

### ***Claim Analysis***

The Applicant has made frequent mention of a crosslinking agent and a chain extender as essential ingredients of the disclosed composition. It is noted for the record that these materials are chemically equivalent insofar as they both feature a plurality of groups that are reactive with the silicon-containing polymer that comprises the first material. That is, any compound capable of chain-extending a polymer would also be capable of crosslinking the same. Indeed, polyols are referred to as chain-extenders in the claims yet they are also described as crosslinking agents in page 12, lines 9-10 of the Specification. (Ultimately, the location of the reactive groups in the polymer will dictate whether a compound functions as a chain extender or a crosslinking agent wherein chain-extension is the end-to-end joining of polymer chains whereas crosslinking will typically involve reactive groups located at an internal position along the polymer chain.) Notably, the location of the reactive groups in the silicon-containing polymer material is not expressly disclosed. Therefore, any reference teaching a crosslinking/curing agent will be applied against claims directed to a composition featuring a chain extender and vice versa.

Applicant is reminded that the chemical change witnessed by visual means recited in each of the independent claims is an inherent aspect of any composition having a high carbon content and, thus, will not lend to the patentability of the claim.

### ***Specification***

On page 10, the crosslinking agent is described as being any material, mono-functional or multi-functional, that will undergo condensation-type reactions with a hydroxyl-group-functionalized silicone resin. It is the Examiner's belief that a compound must contain at least two functional groups to enable that compound to function as a crosslinking agent as a compound having only a single functional group would merely cap the polymer at the site of the polymer reactive group. As such, this portion of the disclosure is objected to. Further, The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

### ***Claim Objections***

Claim 23 is objected because it is presently dependent from a cancelled claim.

### ***Claim Rejections - 35 USC § 102/103***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 9, 13-14, 16, 18-20, 24-25, 35-38, 43, 47, 48, 50, 81, 85 and 86 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Koerner et al., U.S. Patent # 4,749,764. Koerner discloses a heat-curable polysiloxane composition comprised of a polysiloxane resin adhering to the formula in column 2, line 40 wherein the substituents R<sup>1</sup> are preferably methyl and silicone groups in a molar ratio of 0.75:1 to 1.25:1 (column 3, lines 12-16), a multifunctional alcohol selected from one of more of various diols, triols, and other polyols (column 3, lines 61-68), and a lewis acidic curing catalyst such as the titanium- and cobalt-based compounds divulged in column 4, lines 17-23.

As for claims 2, 9, 36 and 43, 16, 18-20, and 24-25, the multifunctional alcohol disclosed therein functions as a crosslinking agent but certainly is capable of serving as a chain-extender.

As for claim 50, Koerner contemplates employing their composition as a film-forming material on metal substrates in column 4, lines 39-40.

Claims 11, 45, 52, 55, 72, and 75 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Decker et al., U.S. Patent # 5,998,560. Decker discloses a coating powder consisting essentially of a silicone resin and a filler selected from mica, calcium, and/or silica. In one embodiment of their invention the silicone resin is one obtained from the reaction of a silanol-terminated organosiloxane polymer and a glycol. Said resin is combined with a blocked polyisocyanate, which is incorporated as a curative. It should be noted for the record that, because the glycol and polymer are reacted prior to adding the crosslinking agent, claims 53 and 54 are not anticipated. As before, the curing agent is also capable of extending the polymer chains of the silicone polymer hence all of the limitations of the aforementioned claims are satisfied.

Claims 11-12, 45, 52, 55, 59, 72, 75, and 79 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wilt et al., U.S. Patent # 5,939,491 in view of Elias, U.S. Patent # 4,565,045 (column 5, lines 16-38), the contents of which have been incorporated therein. Wilt teaches a curable composition comprised of a silicone polymer represented by either of formulae II or III in column 2, a block polyisocyanate curative (column 6, line 16), and a curing catalyst (see, for instance, Example 7). The blocked polyisocyanates, according to Elias, are those derived from the isocyanate compound and a lower alcohol or oxime. One of ordinary skill will appreciate that, in reacting an alcohol and an isocyanate together, a carbamate linkage is created hence the limitation of claim 12 is met. The compositions are

deemed useful as coating materials for a variety of dissimilar surfaces including metal, glass, cloth, plastic, etc.

***Allowable Subject Matter***

Claims 10, 44, 46, 51, 53-54, 56-58, 60, 73-74, 76-78, 80, and 82-84 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 15, 26, 49, 61-71, and 87-88 are allowed.

U.S. Patent # 6,451,421, awarded to Robertson et al. discloses filling the micropores of an aluminum surface with a siloxane polymer and, thereafter, forming an indicia in the polymer by exposing said polymer to a CO<sub>2</sub> laser. However, the polysiloxane is one comprised primarily of methyl substituents and the remainder of the polymer composition does not include any of the remaining materials of the instant invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc S. Zimmer whose telephone number is 703-605-1176. The examiner can normally be reached on Monday-Friday 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on 703-308-2340. The fax phone numbers for the organization where this application or proceeding is

Application/Control Number: 09/855,916  
Art Unit: 1712

Page 7

assigned are 703-872-9310 for regular communications and 703-872-9311 for  
After Final communications.

Any inquiry of a general nature or relating to the status of this application  
or proceeding should be directed to the receptionist whose telephone number is  
703-308-0661.

October 24, 2002



Robert Dawson  
Supervisory Patent Examiner  
Technology Center 1700